MAGNUM ENERGY

2011 International Product & Parts Catalog

The Powerful Difference

Table of Contents

About Magnum

Designed, built, and assembled in the USA.

Magnum Energy is a leading manufacturer of premium inverter/chargers for Mobile, Caravan, Marine, Off-grid, and Back-up applications. With over 150 years of combined inverter design and manufacturing experience, Magnum Energy has incorporated new design and manufacturing techniques to build some of the industry's most reliable, advanced, and cost effective inverter/chargers and accessories.

All of our products are manufactured in our 25,000 square foot USA headquarters in Everett, Washington. Shipped worldwide, our products use the highest quality components to respond to the extreme conditions of multiple climates.

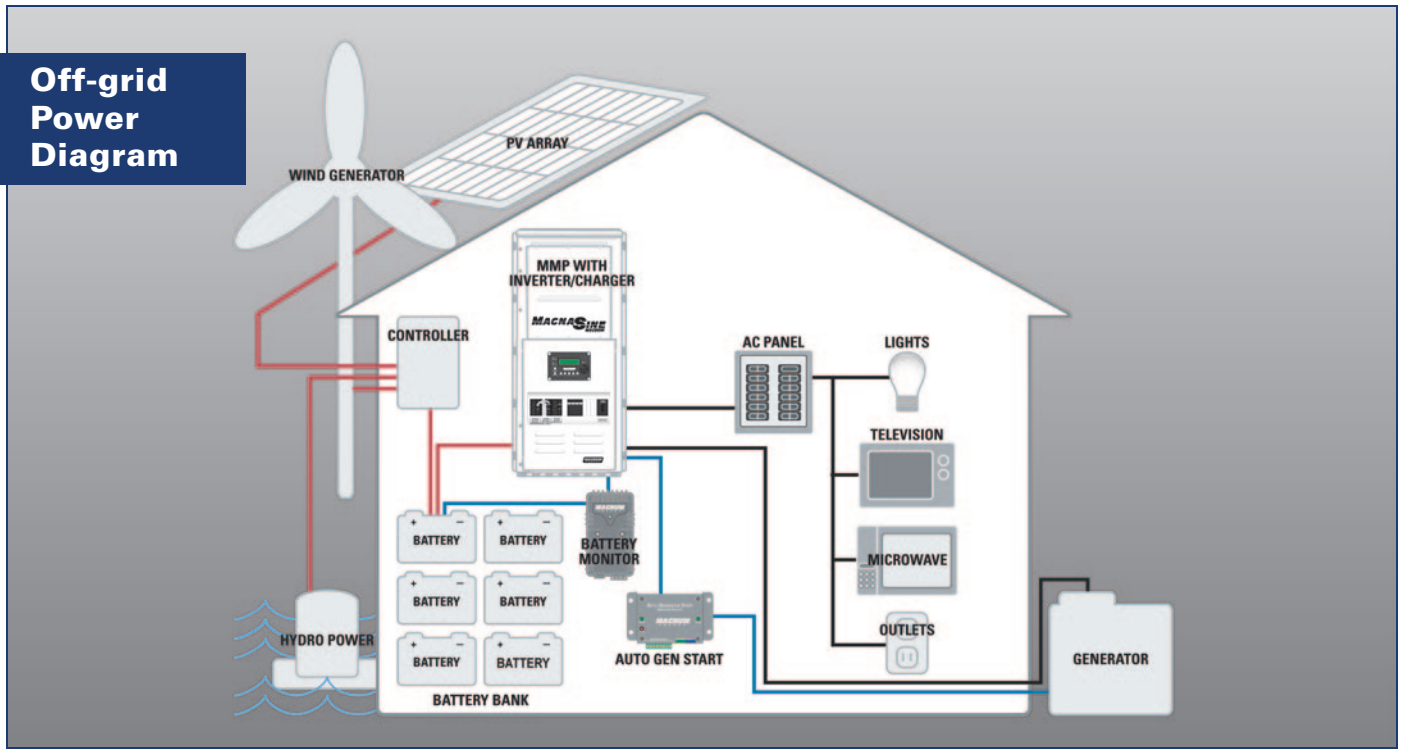
We offer models from our entry-level 900 watt MM-E Series, to our robust 4100 watt MS-E Series, to the new MS-PE Series with up to a 16,400 watt output. Many of our inverter/chargers come in 12 and 24-volt options. Look for our state-of-the-art battery charger design, using power factor correction techniques, an innovative first in both our sine wave and modified sine wave platforms.

See our Mobile and Renewable Energy Catalogs for 120 VAC/ 60 Hz Magnum products.

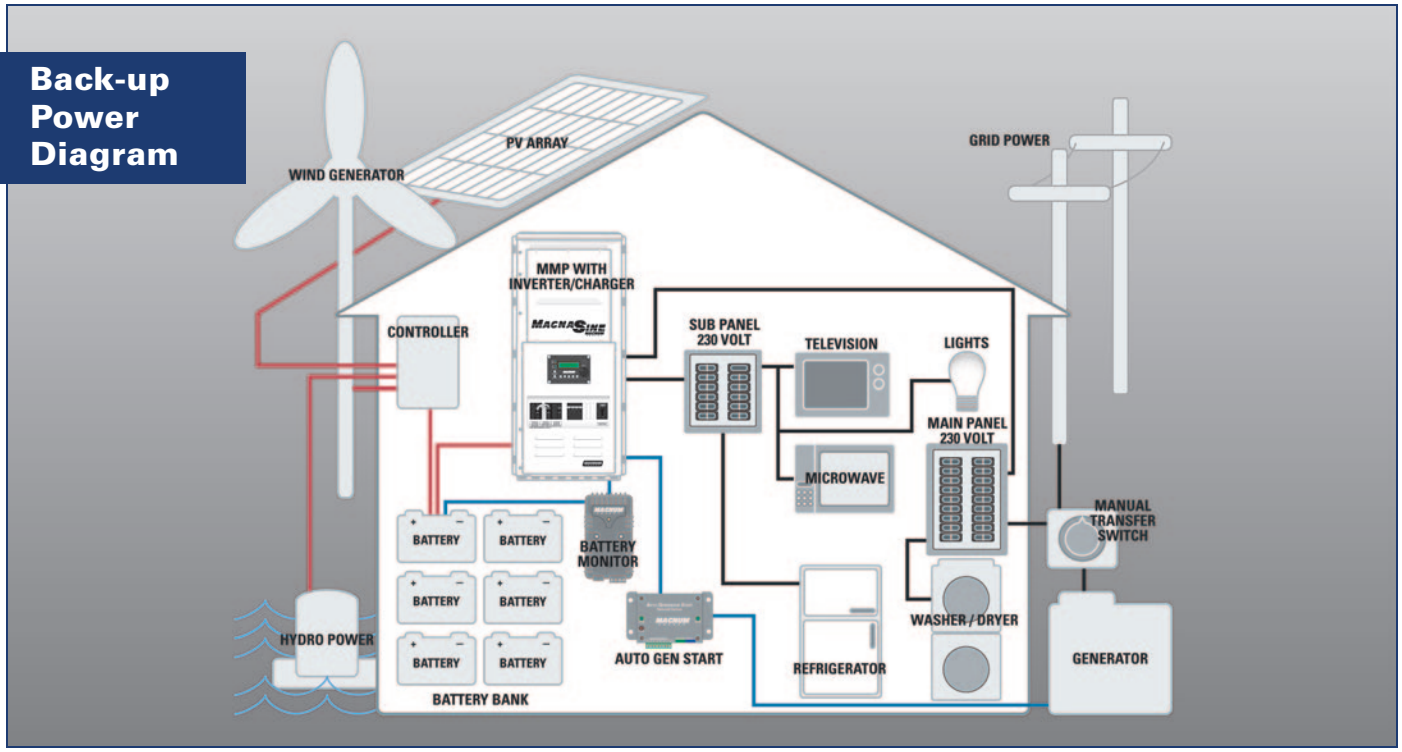
Renewable Energy and Magnum Products

For reliable power regardless of grid connectivity, Magnum inverter/chargers, interconnection system equipment, and accessories are a solid base to build a back-up or off-grid power system. With models available in 12 and 24-volt configurations and power output from 900 to 4100 VA, and systems up to 16,400 VA you'll be sure to find the components right for your situation.

Off-grid Power Diagram



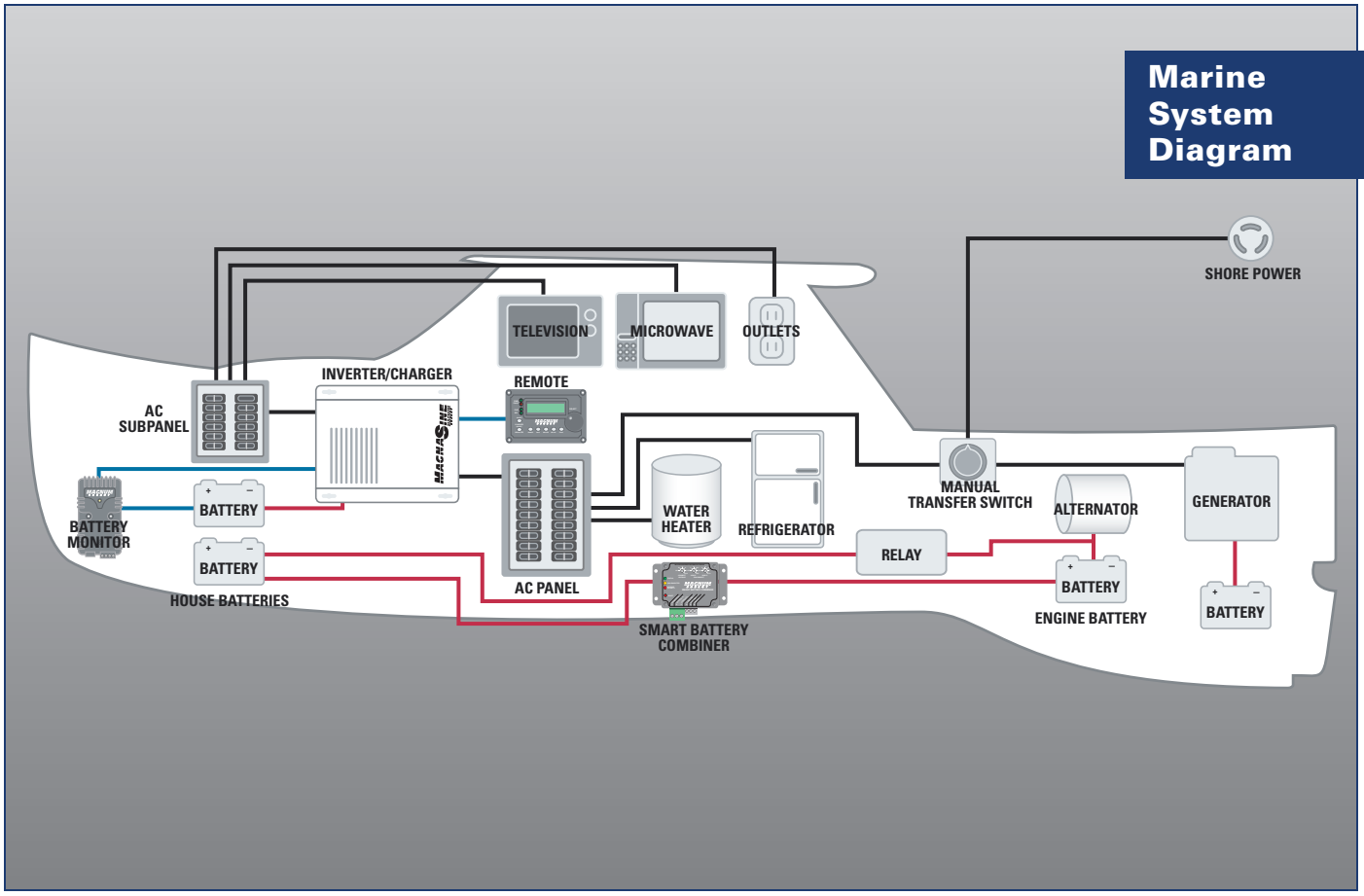
Back-up Power Diagram



When out on the water, your system just needs to work. With a Magnum inverter/charger, not only can you rest easy knowing everything will function as specified, but our inverter/chargers are extremely easy to install.

We offer both sine wave and modified sine wave models to choose from, so that you can choose what's right for you and not have to spend money on features you don't need.

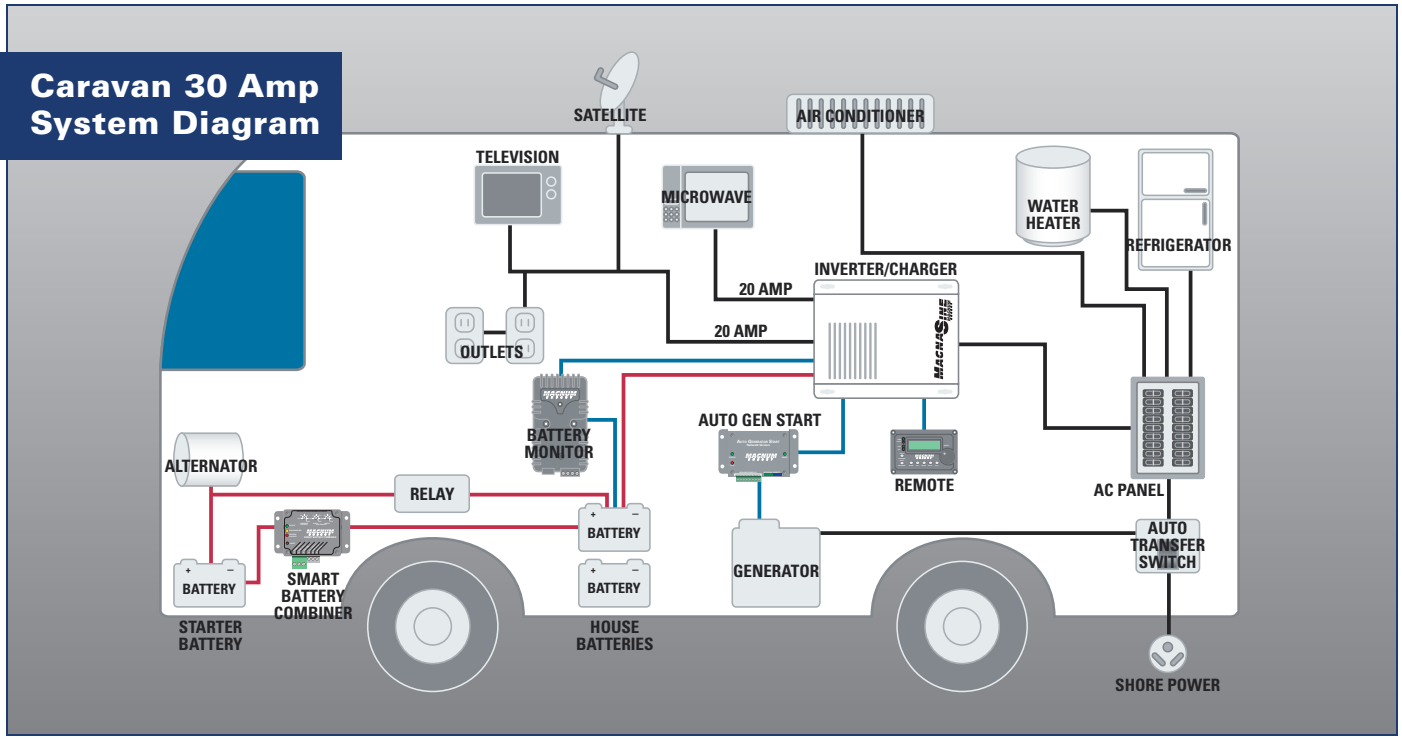
From the MS-E Series that will power your plasma TV to the MM-E Series that provides a cost effective solution to smaller energy needs, Magnum Energy has you covered.



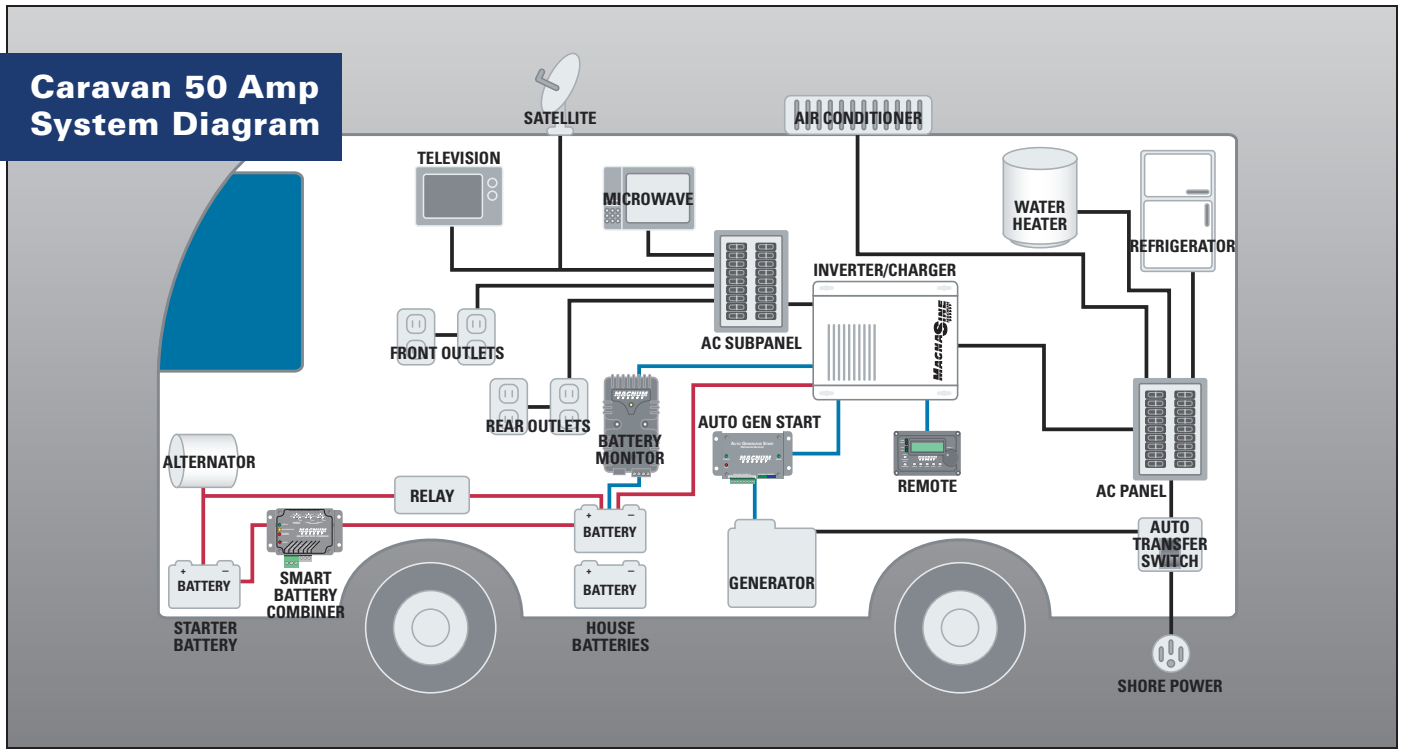
Caravans and Magnum Products

Travel with the comfort of knowing that a Magnum Energy inverter/charger is at the center of your caravan power system. With efficient chargers and lightweight structures, Magnum inverter/chargers are designed with a caravan system in mind. You'll stay on the road and moving with a Magnum inverter/charger.

Caravan 30 Amp System Diagram



Caravan 50 Amp System Diagram



MMP-E – Mini Magnum Panel

The MMP Enclosure

The MMP shown with inverter (sold separately) and optional remote and backplate.

The MMP-E – Mini Magnum Panel is an inclusive, easy-to-install panel designed to work with one Magnum MS-E, MS-PE, RD-E or other non-Magnum inverter/charger.

FEATURES:

- **Small footprint:** only 55.9 cm wide x 38.1 cm tall x 33 cm deep
- **Money-saving design:** not only is the MMP-E less expensive, but it is pre-wired for fast installation, saving labor costs
- **Easy access:** front-mounted breakers and remote (optional)
- **Inclusive:** works with non-Magnum inverter/chargers (stand-alone parts included)
- **DC load breakers:** fits either din rail or back-mount DC load breakers.

INCLUDES:

- One DC breaker – 175A or 250A
- One AC bypass breaker
- 500A/50mv DC shunt
- DC buss bars for battery positive and negative
- Din rail or back mount for optional DC mini breakers – will hold up to eight breakers

Part Numbers	Dimensions (h x w x d)	Shipping Weight
MMP250-E	55.9 cm x 38.1 cm x 33 cm (22″ x 15″ x 13″)	14.5 kg (32 lb)
MMP175-E	55.9 cm x 38.1 cm x 33 cm (22″ x 15″ x 13″)	14.5 kg (32 lb)

MM-E Series Inverter/Charger

The MM-E Series modified sine wave inverter/charger

MODEL NUMBERS:

- MM1012E
- MM1324E

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

AVAILABLE ACCESSORIES:

Magnum Energy now offers the MM-E Series Inverter/Charger for 230 VAC/50 Hz installations. The MM-E Series comes with all of the features you've come to expect from a Magnum product, including:

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter/chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Battery temp sensor: The standard battery temp sensor monitors temperatures from 0 - 50° C.

Convenient switches: All models come with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Features

Attractive styling: The modern, hourglass case, paired with the die cast aluminum base combines form with function, creating an attractive unit that uses its base as a heat sink for superior high temperature operation

Fan cooled: The MM-E Series is fan cooled, enabling the unit to work well in confined spaces. If the inverter does exceed its temperature limits, it will automatically shut down and then restart when it cools down.

Versatile mounting: Mount the MM-E Series on a shelf, wall, or even upside down.

Battery and inverter protection: The MM-E Series protects your batteries and itself with low battery, high battery, current overload, and circuit breaker protection.

MM-E Series Inverter/Charger Specifications

	MM1012E	MM1324E
Inverter Specifications		
Input battery voltage range	9 - 16 VDC	18 - 32 VDC
Nominal AC output voltage	230 VAC ± 5%	230 VAC ± 5%
Output frequency and accuracy	50 Hz ± 0.4 Hz	50 Hz ± 0.4 Hz
1 msec surge current (amps AC)	21	42
100 msec surge current (amps AC)	11	14
5 sec surge power (real watts)	1750	2600
30 sec surge power (real watts)	1600	2100
5 min surge power (real watts)	1350	1850
30 min surge power (real watts)	1180	1650
Continuous power output at 25° C	1000 VA	1300 VA
Maximum continuous input current	133 ADC	87 ADC
Inverter efficiency (peak)	87%	87%
Transfer time	~ 20 ms	~ 20 ms
Search mode (typical)	< 6 watts	< 8 watts
No load (230 VAC output, typical)	16 watts	18 watts
Waveform	Modified Sine Wave	Modified Sine Wave
Charger Specifications		
Continuous output at 25° C	50 A	40 A
Charger efficiency (peak)	84%	83%
Power factor	> 0.95	> 0.95
Input current at rated output (AC amps)	3.5	5.5
General Features and Capabilities		
Transfer relay capability	20 AAC	
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™	
Battery temperature compensation	Yes, 4.6 m (15') Battery Temp Sensor standard	
Internal cooling	0 to 59 cfm variable speed	
Overcurrent protection	Yes, with two overlapping circuits	
Overtemperature protection	Yes on transformer, MOSFETS, and battery	
Conformal coating on PCB's for corrosion protection	Yes	
Powder coated chassis & top for corrosion protection	Yes	
Stainless steel fasteners for corrosion protection	Yes	
Output circuit breaker	7 AAC	
Input circuit breaker	8 AAC	
Listings	None	
Warranty	Two years	
Environmental Specifications		
Operating temperature	-20° C to +60° C (-4° F to 140° F)	
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)	
Operating humidity	0 to 95% RH non condensing	
Physical Specifications		
Dimensions (h x w x d)	42 cm x 21 cm x 12 cm (16.6" x 8.4" x 4.7")	
Mounting	Shelf (top or bottom up) or wall	
Weight	10.4 kg (23 lb)	
Shipping weight	11.3 kg (25 lb)	
Max operating altitude	4570 m (15,000')	
Construction	ABS plastic top and cast aluminum bottom	

Testing for specifications at 25° C. Specifications subject to change without notice.

MMS-E Series Inverter/Charger

The MMS-E Series pure sine wave inverter/charger

MODEL NUMBERS

- MMS912E

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

AVAILABLE ACCESSORIES

The MMS-E Series Inverter/Charger is a pure sine wave inverter providing a cost effective solution for those with smaller power needs in mobile applications. Versatile, easy-to-use, and lightweight, the MMS-E Series provides a reliable base for your energy system.

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter/chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Safe and reliable: The MMS-E Series is listed to the stringent requirements of CE for mobile use.

Attractive styling: The modern, hourglass case, paired with the die cast aluminum base combines form with function, creating an attractive unit that uses its base as a heat sink for superior high temperature operation.

Features

Standard transfer relay:
The standard 20 amp transfer relay will pass AC power through the inverter when using shore or generator power.

Low/high battery protection:
If your battery voltage reaches below 10 VDC or above 17 VDC, the MMS-E Series will automatically shut down.

Versatile mounting:
Mount the MMS-E Series on a shelf, bulkhead, or even upside down.

Fan cooled:
The MMS-E Series is fan cooled, enabling the unit to work well in confined spaces. If the inverter does exceed its temperature limits, it will automatically shut down and then restart when it cools down.

Current overload protection:
The MMS-E Series will automatically shut down if its output wattage is exceeded or it detects a short in the wiring, saving the unit from costly damage.

Convenient switches:
The MMS-E Series comes with an on/off front-mounted switch with an easy-to-read LED indicator.

Circuit breaker protection:
This model comes with built in input and output circuit breakers for ease of installation.

Battery temp sensor:
The standard battery temp sensor monitors temperatures from 0 - 50° C.

Buy with ease:
The MMS-E Series is backed by a two-year (24-month) parts and labor warranty.

MMS-E Series Specifications

	MMS912E
Inverter Specifications	
Input battery voltage	10 to 17 VDC
Nominal AC output voltage	230 VAC ± 5%
Output frequency and accuracy	50 Hz ± 0.1 Hz
Total Harmonic Distortion (THD)	< 5%
1 msec surge current (amps AC)	30
100 msec surge current (amps AC)	7.5
5 sec surge power (real watts)	1600
30 sec surge power (real watts)	1250
5 min surge power (real watts)	1200
30 min surge power (real watts)	1100
Continuous power output at 25° C	900 VA
Maximum continuous input current	120 ADC
Inverter efficiency (peak)	87%
Transfer time	~ 20 ms
Search mode (typical)	0.4 ADC at 12.6 V
No load (230 VAC output, typical)	19 watts at 12.6V
Waveform	Pure Sine Wave
Charger Specifications	
Continuous output at 25° C	40 ADC
Charger efficiency (peak)	80%
Power factor	> 0.95
Input current at rated output (AC amps)	3
General Features and Capabilities	
Transfer relay capability	20 AAC (input current for charging and pass through)
Battery temperature compensation	Yes, 4.6 m (15′) Battery Temp Sensor standard
Internal cooling	0 to 59 cfm variable speed
Overcurrent protection	Yes, with two overlapping circuits
Overtemperature protection	Yes, on transformer and MOSFETS
On/Off with status indicator	Yes, front mounted and easily accessible
Low battery cutout	10 VDC, adjustable with the ME-RC remote
AC output	Hardwire
AC input	Hardwire
Output circuit breaker	7 A switchable
Input circuit breaker	8 AAC
Listings	Listed to CE
Warranty	Two years
Environmental Specifications	
Operating temperature	-20° C to +60° C (-4° F to 140° F)
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)
Operating humidity	0 to 95% RH non condensing
Physical Specifications	
Dimensions (l x w x h)	42 cm x 21 cm x 12 cm (16.6″ x 8.4″ x 4.7″)
Mounting	Shelf (top or bottom up) or bulkhead (vents up)
Weight	10.4 kg (23 lb)
Shipping weight	11.3 kg (25 lb)
Max operating altitude	4570 m (15,000′)
Construction	ABS plastic top and cast aluminum bottom

Testing for specifications at 25° C. Specifications subject to change without notice.

MS-E Series Inverter/Charger

The MS-E Series pure sine wave inverter/charger

MODEL NUMBERS:

- MS1512E
- MS2712E
- MS4124E

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

AVAILABLE ACCESSORIES:

Magnum Energy now offers the MS-E Series Inverter/Charger for 230 VAC/50 Hz installations. The MS-E Series comes with all of the features you've come to expect from a Magnum product, including:

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter/chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Safe and reliable: The MS-E Series is listed to the stringent CE requirements, ensuring the inverter/charger is safe and reliable.

Easy-to-install: Install the MS-E Series in four easy steps: simply connect the inverter's output to your distribution circuits or electrical panel, connect your utility power cable to the inverter's easy-to-reach terminal block, connect the batteries, and switch on the power.

Features:

Pure sine wave: Power your T.V.s, stereos, plasma screens, and other sensitive electronics without worry. The pure sine wave inverter and power factor corrected charger provide clean, reliable inverter power with low total harmonic distortion (THD) of less than 5%.

Choices: The MS-E Series comes in 12 and 24 volt configurations, allowing you to choose the model that is right for you.

Versatile mounting: Mount the MS-E Series on a shelf, bulkhead, or even upside down.

Lightweight: The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.

Multiple ports: The MS-E Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.

Accessible design: The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter more accessible when it needs to be.

Convenient switches: The MS-E Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Buy with ease: The MS-E Series is backed by a two-year (24-month) limited warranty.

MS-E Series Specifications

	MS1512E	MS2712E	MS4124E
Inverter Specifications			
Input battery voltage range	9 - 16 VDC	9 - 17 VDC	18 - 34 VDC
Nominal AC output voltage	230 VAC ±5%	230 VAC ±5%	230 VAC ±5%
Output frequency and accuracy	50 Hz ± 0.4 Hz	50 Hz ± 0.4 Hz	50 Hz ± 0.4 Hz
Total Harmonic Distortion (THD)	< 5%	< 5%	< 5%
1 msec surge current (amps AC)	40	45	65
100 msec surge current (amps AC)	15	21	30
5 sec surge power (real watts)	3100	4100	6300
30 sec surge power (real watts)	2800	3750	5300
5 min surge power (real watts)	2200	3600	4750
30 min surge power (real watts)	1800	3500	4600
Continuous power output at 25° C	1500 VA	2700 VA	4100 VA
Maximum continuous input current	200 ADC	360 ADC	273 ADC
Inverter efficiency (peak)	89%	86%	90%
Transfer time	~ 20 ms	~ 20 ms	~ 20 ms
Search mode (typical)	8 watts	9 watts	9 watts
No load (230 VAC output, typical)	20 watts	34 watts	30 watts
Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Charger Specifications			
Continuous output at 25° C	75 ADC	125 ADC	105 ADC
Charger efficiency (peak)	86%	83%	88%
Power factor	> .95	> .95	> .95
Input current at rated output (AC amps)	4.5	8.5	14

General Features and Capabilities	
Transfer relay capability	30 amps AC
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
Battery temperature compensation	Yes, 4.6 m (15') Battery Temp Sensor standard
Internal cooling	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans
Overcurrent protection	Yes, with two overlapping circuits
Overtemperature protection	Yes on transformer, MOSFETS, and battery
Conformal coating on PCB's for corrosion protection	Yes
Powder coated chassis & top for corrosion protection	Yes
Stainless steel fasteners for corrosion protection	Yes
Listings	CE
Warranty	Two years
Environmental Specifications	
Operating temperature	-20° C to +60° C (-4° F to 140° F)
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)
Operating humidity	0 to 95% RH non condensing
Physical Specifications	
Dimensions (l x w x h)	34.9 cm x 32.1 cm x 20.3 cm (13.75" x 12.65" x 8.0")
Mounting	Shelf (top or bottom up) or wall
Weight	24.0 kg (53 lb)
Shipping weight	26.3 kg (58 lb)
Max operating altitude	4570 m (15,000')

Testing for specifications at 25° C. Specifications subject to change without notice.

MS-PE Series Inverter/Charger

The MS-PE Series pure sine wave inverter/charger

MODEL NUMBERS

- MS4124PE

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

AVAILABLE ACCESSORIES

The MS-PE 230V Series Inverter/Charger from Magnum Energy is a pure sine wave inverter designed specifically for the most demanding renewable energy applications. The MS-PE Series is powerful, easy-to-use, and best of all, cost effective.

Parallel stacking: You can parallel up to four inverter/chargers for up to 16.4kw of power at 230V. The Magnum Router is required for parallel stacking the MS-PE Series.

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Safe and reliable: The MS-PE Series is listed to the stringent requirements CE for renewable energy installations.

Features

Pure sine wave: Power your T.V.s, stereos, plasma screens, and other sensitive electronics without worry. The pure sine wave inverter and power factor corrected charger provide clean, reliable inverter power with low total harmonic distortion (THD) of less than 5%.

Versatile mounting: Mount the MS-PE Series on a shelf or wall.

Lightweight: The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.

Multiple ports: The MS-PE Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.

Accessible design: The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter more accessible when it needs to be.

Convenient switches: The MS-PE Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Buy with ease: The MS-PE Series is backed by a two-year (24-month) limited warranty.

MS-PE 230V Series Specifications

	MS4124PE
Inverter Specifications	
Input battery voltage range	18 - 34 VDC
Nominal AC output voltage	230 VAC ±5%
Output frequency and accuracy	50 Hz ± 0.4 Hz
Total Harmonic Distortion (THD)	< 5%
1 msec surge current (amps AC)	65
100 msec surge current (amps AC)	30
5 sec surge power (real watts)	6300
30 sec surge power (real watts)	5300
5 min surge power (real watts)	4750
30 min surge power (real watts)	4600
Continuous power output at 25° C	4100 VA
Maximum continuous input current	273 ADC
Inverter efficiency (peak)	90%
Transfer time	~ 20 ms
Search mode (typical)	9 watts
No load (230 VAC output, typical)	30 watts
Waveform	Pure Sine Wave
Charger Specifications	
Continuous output at 25° C	105 ADC
Charger efficiency (peak)	88%
Power factor	> .95
Input current at rated output (AC amps)	14
General Features and Capabilities	
Transfer relay capability	30 amps AC
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
Battery temperature compensation	Yes, 4.6 m (15') Battery Temp Sensor standard
Internal cooling	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans
Overcurrent protection	Yes, with two overlapping circuits
Overtemperature protection	Yes on transformer, MOSFETS, and battery
Conformal coating on PCB's for corrosion protection	Yes
Powder coated chassis & top for corrosion protection	Yes
Stainless steel fasteners for corrosion protection	Yes
Listings	CE
Warranty	Two years
Environmental Specifications	
Operating temperature	-20° C to +60° C (-4° F to 140° F)
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)
Operating humidity	0 to 95% RH non condensing
Physical Specifications	
Dimensions (l x w x h)	34.9 cm x 32.1 cm x 20.3 cm (13.75" x 12.65" x 8.0")
Mounting	Shelf (top or bottom up) or wall
Weight	24.0 kg (53 lb)
Shipping weight	26.3 kg (58 lb)
Max operating altitude	4570 m (15,000')

Testing for specifications at 25° C. Specifications subject to change without notice.

RD-E Series Inverter/Charger

The RD-E Series modified sine wave inverter/charger

MODEL NUMBERS:

- RD2624E
- RD4024E

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

AVAILABLE ACCESSORIES:

The Magnum RD-E Series Inverter/Charger for 230 VAC/50 Hz installations comes with all of the features you've come to expect from a Magnum product, including:

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Battery temp sensor: The standard battery temp sensor monitors temperatures from 0 - 50° C.

Convenient switches: All RD-E Series models come with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Features

Easy-to-install: Install the RD-E Series in four easy steps. See your installation manual for specific instructions.

Versatile mounting: Mount the RD-E Series on a shelf or wall.

Multiple ports: The RD-E Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.

Accessible design: The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter easily accessible.

Buy with ease: The RD-E Series is backed by a two-year (24-month) limited warranty.

RD-E Series Inverter/Charger Specifications

	RD2624E	RD4024E
Inverter Specifications		
Input battery voltage range	18 - 32 VDC	18 - 32 VDC
Nominal AC output voltage	230 VAC ± 5%	230 VAC ± 5%
Output frequency and accuracy	50 Hz ± 0.4 Hz	50 Hz ± 0.4 Hz
1 msec surge current (amps AC)	85	100
100 msec surge current (amps AC)	22	40
5 sec surge power (real watts)	4700	7500
30 sec surge power (real watts)	4100	6750
5 min surge power (real watts)	3350	6000
30 min surge power (real watts)	2700	5500
Continuous power output at 25° C	2600 VA	4000 VA
Maximum continuous input current	172 ADC	267 ADC
Inverter efficiency (peak)	91%	89%
Transfer time	~ 20 ms	~ 20 ms
Search mode (typical)	< 7 watts	< 8 watts
No load (230 VAC output, typical)	22 watts	32 watts
Waveform	Modified Sine Wave	Modified Sine Wave
Charger Specifications		
Continuous output at 25° C	75 A	105 A
Charger efficiency (peak)	87%	85%
Power factor	> 0.95	> 0.95
Input current at rated output (AC amps)	11.5	16
General Features and Capabilities		
Transfer relay capability	30 AAC	
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™	
Battery temperature compensation	Yes, 4.6 m (15') Battery Temp Sensor standard	
Internal cooling	0 to 120 cfm variable speed	
Overcurrent protection	Yes, with two overlapping circuits	
Overtemperature protection	Yes on transformer, MOSFETS, and battery	
Conformal coating on PCB's for corrosion protection	Yes	
Powder coated chassis & top for corrosion protection	Yes	
Stainless steel fasteners for corrosion protection	Yes	
Output circuit breaker	NA	
Input circuit breaker	30 AAC	
Listings	None	
Warranty	Two years	
Environmental Specifications		
Operating temperature	-20° C to +60° C (-4° F to 140° F)	
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)	
Operating humidity	0 to 95% RH non condensing	
Physical Specifications		
Dimensions (h x w x d)	34.9 cm x 32.1 cm x 20.3 cm (13.75" x 12.65" x 8.0")	
Mounting	Shelf (top or bottom up) or wall	
Weight	19 kg (42 lb)	25 kg (55 lb)
Shipping weight	21.3 kg (47 lb)	27.2 kg (60 lb)
Max operating altitude	4570 m (15,000')	

Testing for specifications at 25° C. Specifications subject to change without notice.

Automatic Generator Start Module (AGS)

MODEL NUMBERS:

- ME-AGS-S
- ME-AGS-N

WORKS WITH:

The ME-AGS-S does not require an inverter/charger.

Imagine being able to enjoy a day away all-the-while knowing your living space will stay cool and comfortable and your batteries will stay charged and ready for all of the activities that make up daily life. There's nothing better than returning to a nice, cool, comfortable home with charged batteries after a day away. The Magnum Auto Gen Start (AGS) can make this happen.

The Magnum AGS is compatible with most major generators, including Onan, Powertech, Generac, Westerbeke, Kohler, EPS, Northern Lights, and most portable generators with electric start. Please check with your Magnum dealer for specific model compatibility.

Automatically start your generator: The ME-AGS-S is designed to automatically start your generator based on low battery condition or the inside room temperature.

Adjust the AGS to meet your needs: With the ME-AGS-N you can set multiple parameters for starting and stopping the generator. Using the ME-RC, the ME-AGS-N has basic adjustments starting on battery voltage or temperature. When using the ME-ARC, the ME-AGS-N has advanced start and stop features, including battery voltage, time of day, AC amps, exercise time, and SOC.

Manual start and stop: Auto Gen Start settings do not interfere with the manual start / stop operation of the generator. Just use any existing start / stop switch for your generator.

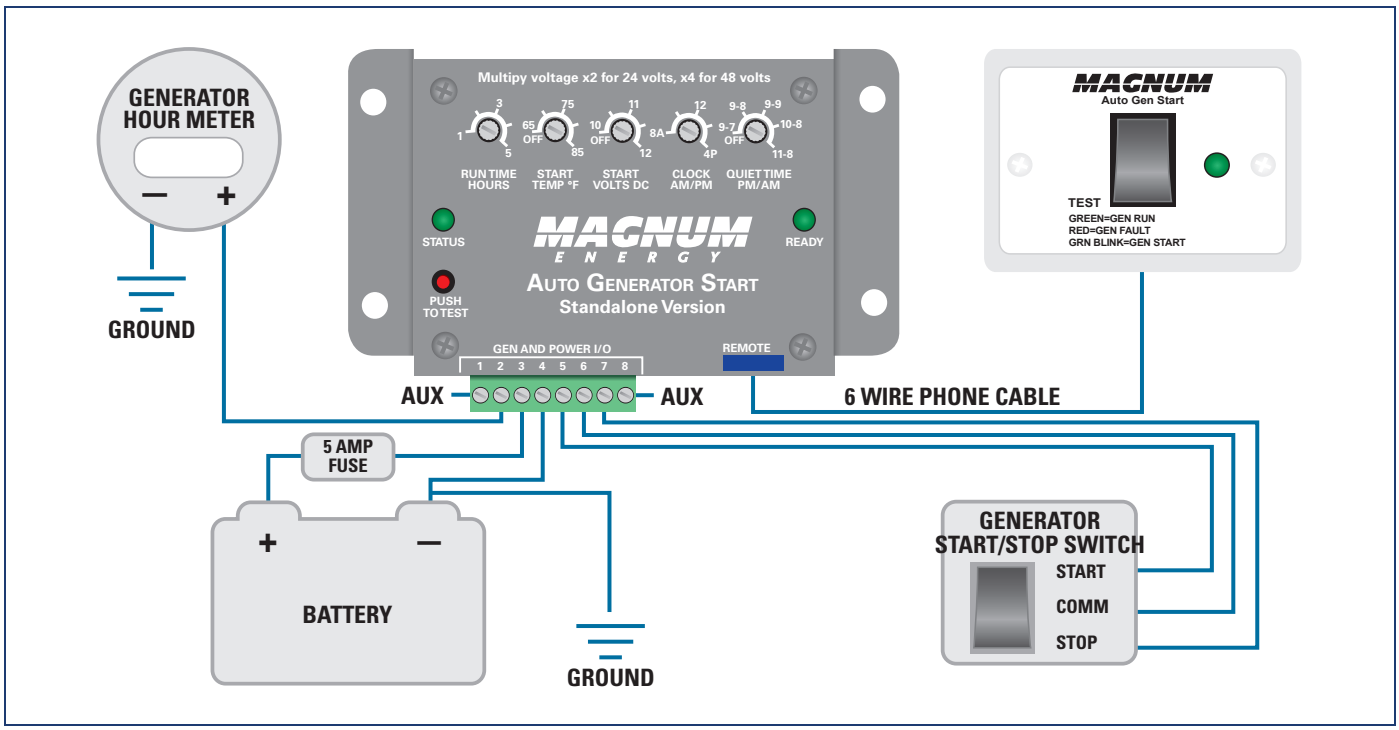
Two models are available: The stand alone version of the AGS (ME-AGS-S) works well for installation and operation without an inverter. The network version of the AGS (ME-AGS-N) allows operation of the AGS via the ME-RC50 remote panel.

- **ME-AGS-N kit includes:** AGS module (3 relay), 3.1 m (10') network cable, and a 18.3 m (60') remote temperature sensor cable.
- **ME-AGS-S kit includes:** AGS module (3 relay), Remote on/off/test switch, switch bezel, a 7.6 m (25') 6-wire cable, and has basic adjustments starting on battery voltage or temperature.

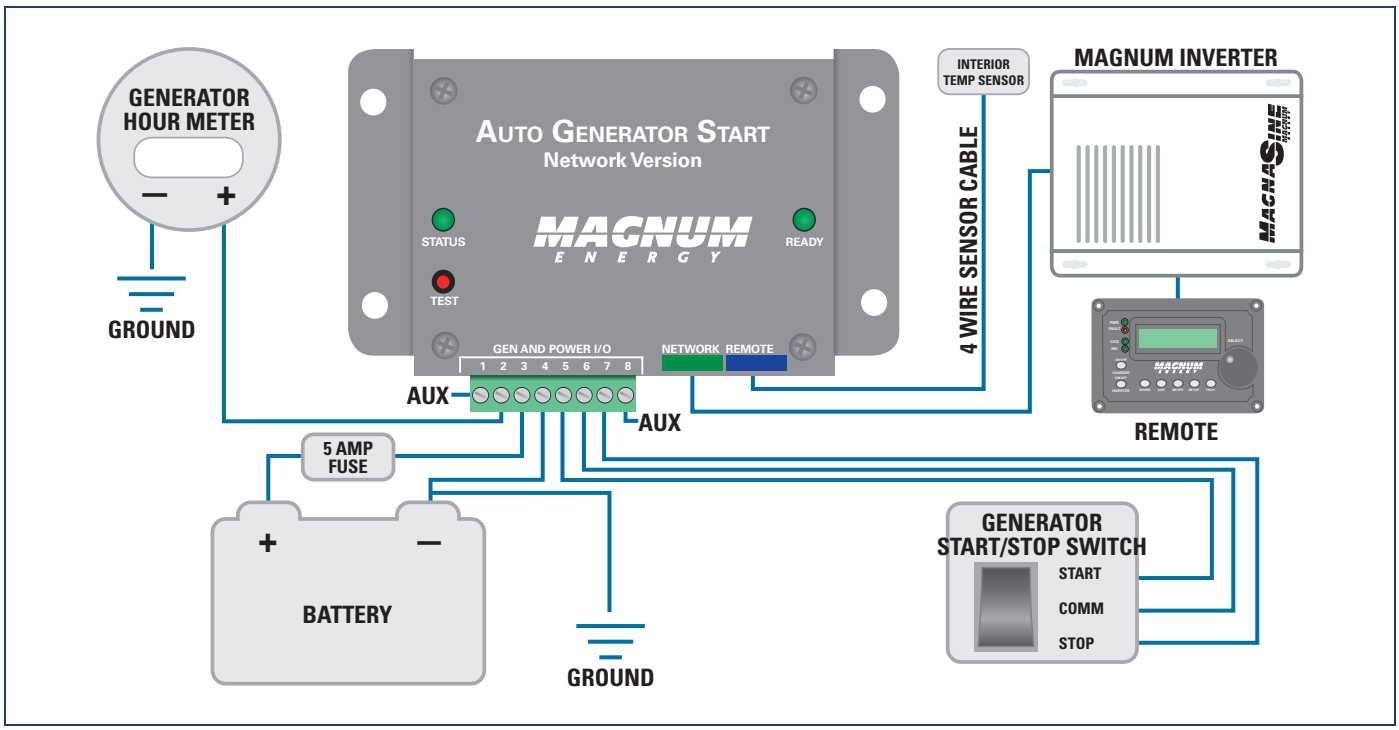
ME-AGS-N FEATURES

- All settings are adjustable from the ME-RC and ME-ARC remotes.
- Auto start is locked out when utility power is present.
- Portable generator mode.
- The AGS accommodates 12, 24, and 48 volt settings.

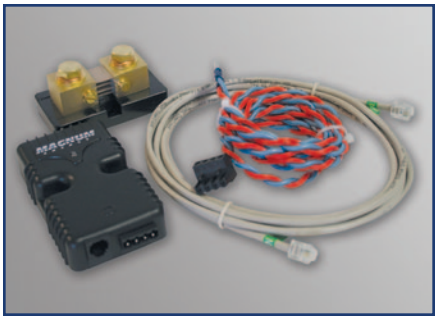
AGS Wiring Diagram for Stand Alone Systems (ME-AGS-S)



AGS Wiring Diagram for Networked Systems (ME-AGS-N)



Battery Monitor Kit (ME-BMK)



MODEL NUMBERS:

- ME-BMK
- ME-BMK-NS (no shunt)

WORKS WITH:

Monitoring your battery bank is easy with the Battery Monitor Kit (ME-BMK) from Magnum Energy. Acting as a "fuel gauge" for your batteries, the ME-BMK monitors their state of charge (SOC) and then provides this information in an easy-to-understand display via the ME-RC or ME-ARC remotes. With accurate SOC readings, you can avoid unneccessary battery recharging, saving on fuel and long-term maintenance costs.

If you already have a Magnum Inverter/Charger and Magnum Remote, the ME-BMK is an easy retrofit. Simply install the kit according to the installation manual and begin monitoring your battery bank via the "Meter" button on your ME-RC or ME-ARC.

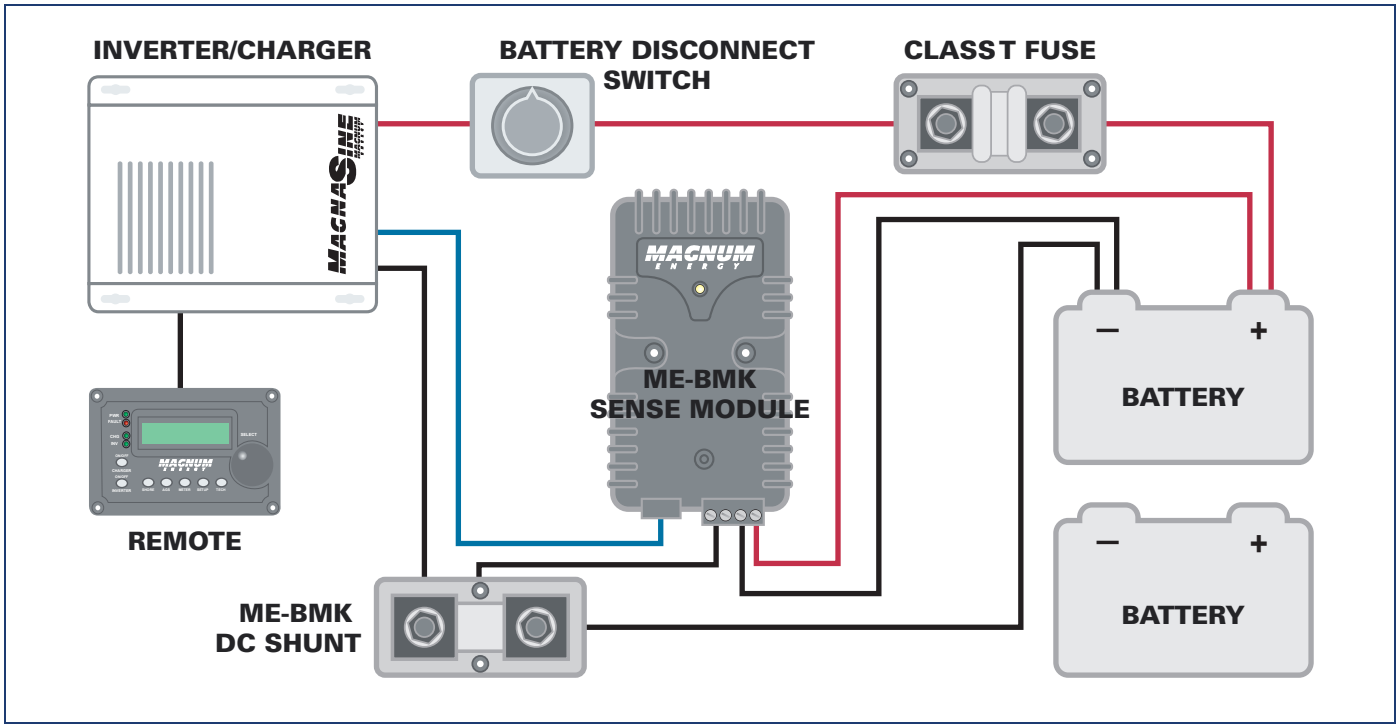
Available readings from the ME-BMK/ ME-BMK-NS

- State of Charge (SOC) 0 - 100%
- DC volts
- DC amps
- Amp hours in/out
- Resettable amp hours out
- Total amp hours out
- Minimum volts DC
- Maximum volts DC
- Temperature compensated
- Auto detects input voltage

Kit includes

- Sense module
- DC shunt 50mv/500 amp shunt (not included in the ME-BMK-NS kit)
- Twisted pair wire 1.5 m (5') length, 18 AWG wire
- Communication cable 3.1 m (10') length, 2-conductor, telephone standard

ME-BMK Basic Configuration Diagram



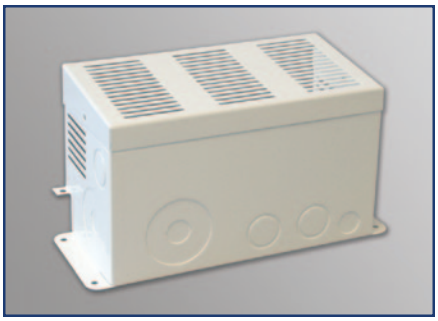
ME-BMK Specifications

ME-BMK	
DC volts	7 to 70 (±0.5%) auto voltage detection
DC amps	±0.1 to 999 (±1.0%)
Battery SOC %	0 to 100% (1% increments)
Power draw	< .6 watts
Amp hours in/out	±32,768 amp hours (1 AH increments)
rAH out (resettable amp hours removed)	0 to 65,353 amp hours, resettable (0.1 AH increments)
tAH out (total amp hours removed)	0 to 65,535,000 amp hours (0.1 k or 100 AH increments)
Minimum/maximim DC	7 to 70 VDC, resettable
Shipping weight	.9 kg (2 lb)
Kit includes	Manual, sense module, DC shunt, twisted pair wire, and communication cable
Sense wire	Twisted pair –blue & orange, 1.5 m (5') length, 18 AWG wire
Communication cable	4-conductor, 3.1 m (10') twisted pair, telephone standard
Remote requirements	Use with an ME-RC with firmware revision of 2.0 or higher or an ME-ARC (all revisions)

DC Shunt (not included with the ME-BMK-NS kit)	
Resistance	0.1 milliohm (500A at 50mV)
Continuous current	410 amperes maximum
Overload current	Overloads to 500 amps for less than 5 minutes if normally operated at less than 300 amps

Testing for specifications at 25° C. Specifications subject to change without notice.

Conduit Box



The ME-CB conduit box is designed to work with Magnum MS-E, MS-PE, and RD-E Series Inverter/Chargers. It provides an enclosure for AC and/or DC wiring and has knockouts for 1.3 cm, 1.9 cm, 2.5 cm, and 5.1 cm (½", ¾", 1", and 2") trade-size conduit. The ME-CB adds just over 13 cm (5") to the length of the inverter.

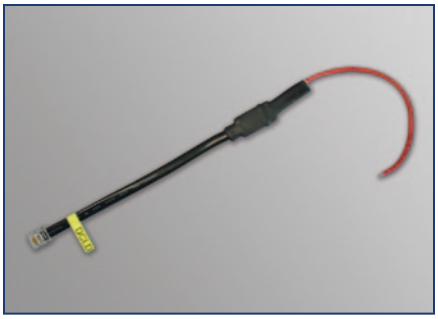
MODEL NUMBERS:

- ME-CB

WORKS WITH:

Page
MS-E Series 10
MS-PE Series 12
RD-E Series..... 14

DC Load Disconnect



The DC Load Disconnect is a pigtail adapter designed to automatically turn off the inverter via a 12 volt DC disconnect switch.

MODEL NUMBERS:

- ME-DCLD
- MM-DCLD

WORKS WITH:

Page

ME-DCLD only

MS-E Series 10
RD-E Series..... 14

MM-DCLD only

MM-E Series 6
MMS-E Series 8

Ignition Switch Lockout

The Ignition Switch Lockout is a pigtail adapter designed to automatically turn off the inverter via a vehicle ignition switch.

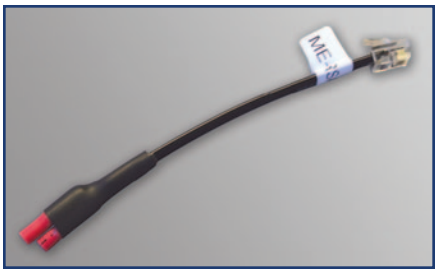
MODEL NUMBERS:

- ME-ISW

WORKS WITH:

Page
MS-E Series 12
RD-E Series..... 14

Remote Switch Adapter



The Remote Switch Adapter is a pigtail adapter designed to provide a simple on/off remote switch.

MODEL NUMBERS:

- ME-RSA *(use SPST switch)*
- ME-RSA-M *(use momentary switch)*

WORKS WITH:

Page
MS-E Series 10
RD-E Series..... 14

Fuse Blocks

Protection against costly damage: The ME-125F, ME-200F, ME-300F, and ME-400F protect the battery bank, inverter, and cables from damage caused by short circuits and overloads.

Complete kit in one package: Magnum Energy fuses include a Slow-Blow high current fuse, a mounting block, and protective cover.

MODEL NUMBERS:

- ME-125F
- ME-200F
- ME-300F
- ME-400F

WORKS WITH:

Page

ME-125F and ME-200 only

MM-E Series 6
MMS-E Series 8

ME-300F and ME-400F only

MS-E Series 10
MS-PE Series 12
RD-E Series..... 14

Fuse Selection

Conductor Gauge	Current Capacity	Recommended Fuse Rating
4 AWG	125	125
1/0 AWG	200	200
2/0 AWG	290	300
3/0 AWG	310	300
4/0 AWG	360	400

The MagWeb: Web Monitoring Kit

The MagWeb is a powerful and cost effective tool for remotely monitoring Magnum Energy's inverters and accessories. Installed on the Magnum network, the MagWeb provides live Internet monitoring of the inverter, battery monitor, and automatic generator start module. Using your always on Internet connection, the MagWeb makes live and historical conditions available to you through a web browser at **data.magnumenergy.com**.

The MagWeb constantly streams data to your personal web pages, providing details on Current Conditions, Current Settings, and Daily Summaries for historical records.

MODEL NUMBERS:

- ME-MW-W *(wireless)*
- ME-MW-E *(ethernet)*

WORKS WITH:

Page

MS-E Series 10
MS-PE Series 12
RD-E Series..... 14

Remote - ME-RC

The ME-RC is designed to be simple to use while offering multiple functions in one place.

Easy-to-read: The large LCD screen and at-a-glance LEDs display the inverter/charger status in a straight-forward way. Soft keys give simple access to menus and a rotary encoder knob makes it easy to quickly scroll through menus and select settings.

Non-volatile memory: Critical settings are saved even if the power is disconnected.

No cross platform confusion: The ME-RC remote is the same remote used on all Magnum inverter/charger models in the MM-E, MMS-E, MS-E, MS-PE, and the RD-E Series lines.

Multiple functional settings: The ME-RC offers multiple functions in one place, including: inverter on/off, charger on/off, shore power breaker settings, AGS control, meter button, simple setup, and technical menus.

A standard 15.2 m (50') 4-wire, twisted pair cable allows for plenty of room to display the Remote with ease.

MODEL NUMBERS:

- ME-RC50

WORKS WITH:

Page
MM-E Series 6
MMS-E Series 8
MS-E Series 10
MS-PE Series 12
RD-E Series..... 14

Remote - ME-ARC

This advanced feature remote offers the same simple push button operation of the ME-RC with advanced features and setup menus. The ME-ARC features a ***Favs*** button for storing up to five of your favorite setup menus, a ***Control*** button for fast easy control of the inverter, charger, and generator, meter button with AC and DC meters, advanced setup menus, and advanced tech menus.

Easy-to-read: The large LCD screen and at-a-glance LEDs display the inverter/charger status in a straight-forward way. Soft keys give simple access to menus and a rotary encoder knob makes it easy to quickly scroll through menus and select settings.

Non-volatile memory: Critical settings are saved even if the power is disconnected.

No cross platform confusion: The ME-ARC remote is the same remote used on all Magnum inverter/charger models in the MM-E, MMS-E, MS-E, MS-PE, and the RD-E Series lines.

A standard 15.2 m (50') 4-wire, twisted pair cable allows for plenty of room to display the Remote with ease.

MODEL NUMBERS:

- ME-ARC50

WORKS WITH:

Page
MM-E Series 6
MMS-E Series 8
MS-E Series 10
MS-PE Series 12
RD-E Series..... 14

Remote - MM-RC

MM-RC Inverter/Charger models

The low-cost, easy-to-read MM-RC Remote is designed to work with the MM-E and MMS-E Series Inverter/Chargers.

MODEL NUMBERS:

- MM-RC25

WORKS WITH:

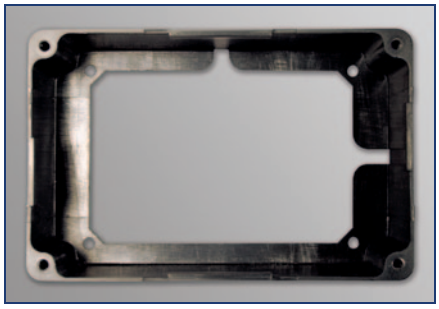
Page
MM-E Series 6
MMS-E Series 8

Features

LEDs	Three LEDs: Invert, AC In, and Fault Modes Six LEDs: Invert, AC In, Fault Modes, Bulk, Absorb, and Float
Mounting	On/Off: Turns inverter or charger on or off and defeats "search" mode Includes bezel for suface mount or flush mount
Included with the Remote	7.6 m (25') phone cable

Remote Bezel - ME-RC-BZ

Mounting bezel for the ME-RC remote, allowing the ME-RC to be surface mounted.



ME-RC shown mounted in bezel. Remote and bezel sold separately.

MODEL NUMBERS:

- ME-RC-BZ

WORKS WITH:

Page
ME-RC 22

Router

The ME-RTR is a combination of the ME-ARC advanced feature remote and a communication hub for MS-PE parallel units all in one easy-to-install and operate unit. The ME-RTR features full inverter/charger setup and control, four-line LCD display, four parallel stacking ports for the MS-PE Series inverter/charger, communication ports for ME-AGS-N or ME-BMK accessories, and a two wire voltage controlled auxiliary relay.

MODEL NUMBERS:

- ME-RTR

WORKS WITH:

Page
MS-PE 12

Smart Battery Combiner (ME-SBC)

MODEL NUMBERS:

- ME-SBC

AVAILABLE FOR:

- Renewable Energy Systems
  Off-grid Power
  Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

WORKS WITH:

The Magnum Energy Smart Battery Combiner (ME-SBC) is an easy-to-use stand alone battery combiner and isolator for 12 and 24 VDC systems. Apply a single charging source to the main battery bank and the ME-SBC charges a second battery bank using a portion of the current. With adjustable voltage ranges, including automatic on/off setpoints, the ME-SBC prevents under- or over-charging.

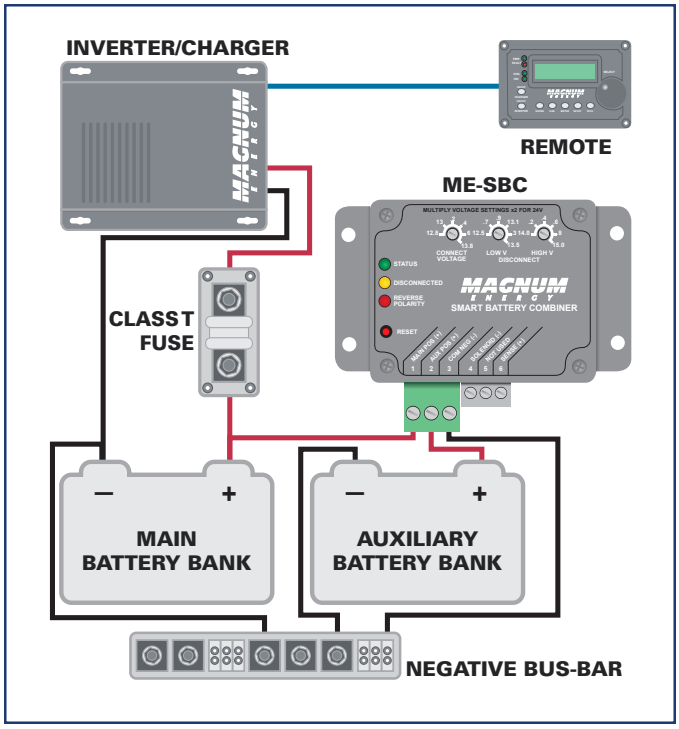
The Front Panel Includes:

- LED indicators showing status and operation.
- Three adjustable voltage dials to set the "Connect Voltage", "Low V Disconnect", and "High V Disconnect."
- An oversized power terminal block allowing for easy wire connections even if the wires are large.
- An accessories terminal block to add a solenoid or a separate voltage sense line.
- A reset switch.

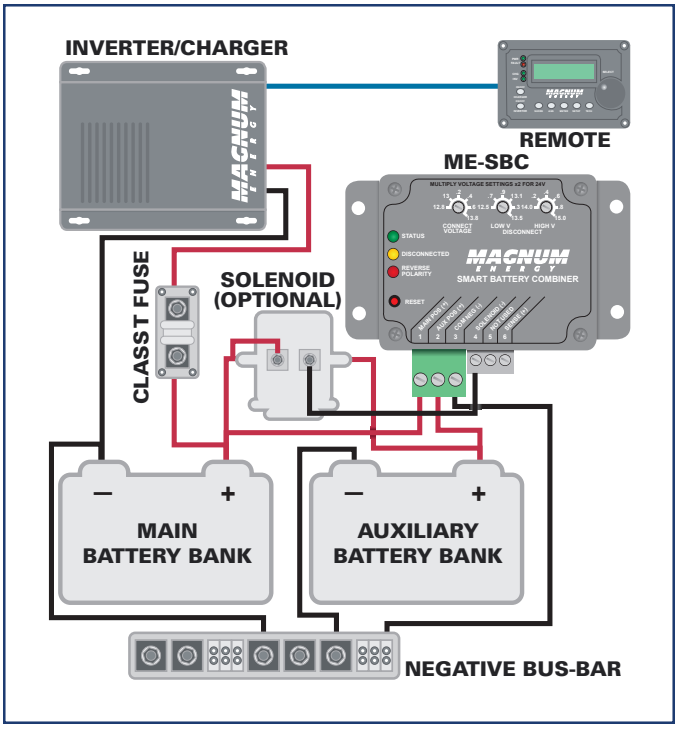
Features:

- Voltage auto-detect feature recognizing 12 or 24 VDC.
- Transfers up to 25 amps.
- Solenoid drive for requirements greater than 25 amps.
- Over-temperature and over-current shutdown.
- Adjustable voltage settings with a wide range allows for charging flexibility.
- Bi-directional charging.
- Reverse polarity protection.
- Sense lead for long-run applications.

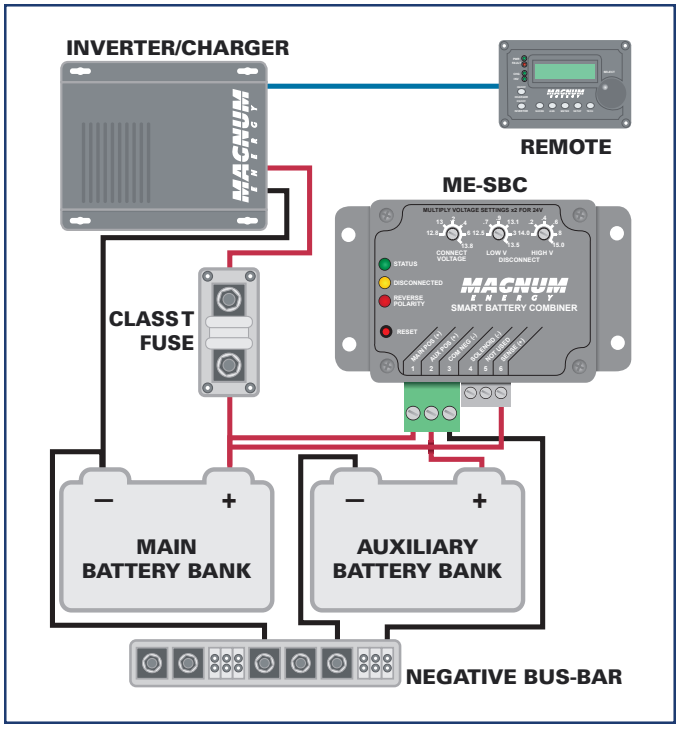
ME-SBC Basic Configuration Diagrams



25 amp Combiner Mode



Solenoid Drive



Remote Voltage Sense

ME-SBC Specifications

ME-SBC	
DC volts	12 or 24 VDC nominal
DC amps	25 amps continuous
Maximum VDC	40 volts peak
Average operating tare loss	~150 mW
Maximum operating tare loss	< 220 mW
Non-operating tare loss	< 50 mW
Operating range	0 - 32 VDC
Shipping weight	0.9 kg (2 lbs)
Shipping dimensions (l x w x h)	15.2 x 22.9 x 6.4 cm (6″ x 9″ x 2.5″)
Unit dimensions (l x w x h)	10.7 x 13.7 x 3.6 cm (4.2″ x 5.4″ x 1.4″)
Maximum operating temperature	-40° C to + 85° C (-40° F to +185° F)
Maximum storage temperature	-40° C to + 90° C (-40° F to +194° F)

Testing for specifications at 25° C. Specifications subject to change without notice.

Magnum Energy, Inc.
2211 West Casino Road
Everett, Washington 98204 USA

Phone: 425-353-8833
Fax: 425-353-8390

Web: www.magnumenergy.com

Magnum Energy Europe
Contact: Kelly Lane
Barcelona, Espana

Email: klane@magnumenergy.com

March 2011, Rev A Part #64-5015